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DEPARTMENT OF DEFENSE

Billing Code 5001-06

Office of the Secretary

(Transmittal Nos. 12-32)

36(b)(1) Arms Sales Notification

AGENCY: Defense Security Cooperation Agency, DoD.

ACTION: Notice

SUMMARY: The Department of Defense is publishing the unclassified text of a section 36(b)(1) arms sales notification. This is published to fulfill the requirements of section 155 of Public Law 104-164 dated 21 July 1996.

FOR FURTHER INFORMATION CONTACT: Ms. B. English,
DSCA/DBO/CFM, (703) 601-3740.

SUPPLEMENTARY INFORMATION: The following is a copy of a letter to the Speaker of the House of Representatives, Transmittals 12-32 with attached transmittal, policy justification, and Sensitivity of Technology.

Dated: September 26, 2012

Morgan F. Park
Alternate OSD Federal Register Liaison Officer
Department of Defense



DEFENSE SECURITY COOPERATION AGENCY
201 12TH STREET SOUTH, STE 203
ARLINGTON VA 22202-5408

The Honorable John A. Boehner
Speaker of the House
U.S. House of Representatives
Washington, DC 20515

SEP 21 2012

Dear Mr. Speaker:

Pursuant to the reporting requirements of Section 36(b)(1) of the Arms Export Control Act, as amended, we are forwarding herewith Transmittal No. 12-32, concerning the Department of the Army's proposed Letter(s) of Offer and Acceptance to the Republic of Korea for defense articles and services estimated to cost \$3.6 billion. After this letter is delivered to your office, we plan to issue a press statement to notify the public of this proposed sale.

Sincerely,

Richard A. Genaille, Jr.
Deputy Director

Enclosures:

1. Transmittal
2. Policy Justification
3. Sensitivity of Technology



Notice of Proposed Issuance of Letter of Offer
Pursuant to Section 36(b)(1)
of the Arms Export Control Act, as amended

- (i) Prospective Purchaser: Republic of Korea
- (ii) Total Estimated Value:
- | | |
|--------------------------|----------------------|
| Major Defense Equipment* | \$2.5 billion |
| Other | <u>\$1.1 billion</u> |
| TOTAL | \$3.6 billion |
- (iii) Description and Quantity or Quantities of Articles or Services under Consideration for Purchase:
- | | |
|---------|--|
| 36 | AH-64 D APACHE Longbow Block III Attack Helicopters |
| 84 | T-700-GE-701D Engines |
| 42 | Modernized Target Acquisition and Designation Sight/Modernized Pilot Night Vision Sensors |
| 36 | AN/APG-78 Fire Control Radar (FCR) with Radar Electronics Unit (Longbow Component) |
| 36 | AN/APR-48A Radar Frequency Interferometers |
| 42 | AN/APR-39 Radar Signal Detecting Sets |
| 45 | AN/AVR-2B Laser Warning Set |
| 43 | AAR-57(V) 3/5 Common Missile Warning Systems (CMWS) with 5 th Sensor and Improved Countermeasure Dispensers |
| 42 | AN/APX-123 Transponders |
| 120 | Improved Helmet Display Sight Systems (IHDSS-21) |
| 81 | Embedded Global Positioning Systems with Inertial Navigation |
| 38 | 30mm Automatic Chain Guns (Aircraft Component) |
| 90 | AN/ARC-201E Single Channel Ground and Airborne Radio Systems (SINCGARS) Radios |
| 90 | AN/ARC-231 Radios |
| 42 | AN/ARC-220 Radios |
| 80 | M299 HELLFIRE or Missile Launchers |
| 400 | AGM-114R1 HELLFIRE Missiles Semi-Active Lasers (SAL) |
| 438 | STINGER Block I 92H Missiles |
| 774,144 | 30 mm Cartridge HEDP High Explosive Dual Purpose M789s |
| 11,020 | 2.75 Inch HYDRA Rockets (Unguided) |
| 108 | APACHE Aviator Integrated Helmets (AAIH) |

* as defined in Section 47(6) of the Arms Export Control Act.

Also included are training devices, simulators, generators, transportation, wheeled vehicles and organizational equipment, tools and test equipment, communication equipment, spare and repair parts, support equipment, personnel training and training equipment, publications and technical documentation, U.S. Government and contractor engineering, technical and logistics support services, and other related elements of program support.

- (iv) Military Department: Army (ZCF)
- (v) Prior Related Cases, if any: None
- (vi) Sales Commission, Fee, etc., Paid, Offered, or Agreed to be Paid: None
- (vii) Sensitivity of Technology Contained in the Defense Article or Defense Services Proposed to be Sold: See Attached Annex
- (viii) Date Report Delivered to Congress: **SEP 21 2012**

POLICY JUSTIFICATION

Republic of Korea (ROK) – AH-64D APACHE Attack Helicopters

The Republic of Korea has requested a possible sale of

- 36 AH-64 D APACHE Longbow Block III Attack Helicopters
- 84 T-700-GE-701D Engines
- 42 Modernized Target Acquisition and Designation Sight/Modernized Pilot Night Vision Sensors
- 36 AN/APG-78 Fire Control Radar (FCR) with Radar Electronics Unit (Longbow Component)
- 36 AN/APR-48A Radar Frequency Interferometers
- 42 AN/APR-39 Radar Signal Detecting Sets
- 45 AN/AVR-2B Laser Warning Sets
- 43 AAR-57(V) 3/5 Common Missile Warning Systems (CMWS) with 5th Sensor and Improved Countermeasure Dispensers
- 42 AN/APX-123 Transponders
- 120 Improved Helmet Display Sight Systems (IHDS-21)
- 81 Embedded Global Positioning Systems with Inertial Navigation
- 38 30mm Automatic Chain Guns (Aircraft Component)
- 90 AN/ARC-201E Single Channel Ground and Airborne Radio System (SINCGARS) Radios
- 90 AN/ARC-231 Radios
- 42 AN/ARC-220 Radios
- 80 M299 HELLFIRE or Missile Launchers
- 400 AGM-114R1 HELLFIRE Missiles Semi-Active Lasers (SAL)
- 438 STINGER Block I 92H Missiles
- 774,144 30 mm Cartridge HEDP High Explosive Dual Purpose M789s
- 11,020 2.75 Inch HYDRA Rockets (Unguided)
- 108 APACHE Aviator Integrated Helmets (AAIH)

Also included are training devices, simulators, generators, transportation, wheeled vehicles and organizational equipment, tools and test equipment, communication equipment, spare and repair parts, support equipment, personnel training and training equipment, publications and technical documentation, U.S. Government and contractor engineering, technical and logistics support services, and other related elements of program support. The estimated cost is \$3.6 billion.

The ROK is one of the major political and economic powers in East Asia and the Western Pacific and a key partner of the United States in ensuring peace and stability in that region. It is vital to the U.S. national interest to assist our Korean ally in developing and maintaining a strong and ready self-defense capability, which will contribute to an acceptable military balance in the area.

The ROK intends to use the AH-64Ds to effectively secure its borders and littoral waters, as well as conduct counter-terrorism/counter-piracy operations. The proposed sale will provide the ROK Army with a defensive capability while enhancing interoperability with U.S. forces and other allied forces. Korea will have no difficulty absorbing these helicopters into its armed forces.

The proposed sale of this equipment and support will not alter the basic military balance in the region.

The prime contractors will be The Boeing Company in Mesa, Arizona; Lockheed Martin Corporation in Orlando, Florida; General Electric Company in Cincinnati, Ohio; Lockheed Martin Millimeter Technology in Owego, New York; and Longbow Limited Liability Corporation in Orlando, Florida. There are no known offset agreements proposed in connection with this potential sale.

Implementation of this proposed sale may require the assignment of additional U.S. contractor and U.S. Government representatives in country full-time. Contractor Field Service Representatives will be in country for post production support for an estimated three years with anticipation of a future follow on support contract or an additional Foreign Military Sales contract for support. Also, U.S. Government representatives will include a U.S. Army Aviation and Missile Life Cycle Management Command (AMCOM) field office for technical and logistical support for three years.

There will be no adverse impact on U.S. defense readiness as a result of this proposed sale.

Transmittal No. 12-32

Notice of Proposed Issuance of Letter of Offer
Pursuant to Section 36(b)(1)
of the Arms Export Control Act, as amended

Annex
Item No. vii

(vii) Sensitivity of Technology:

1. The AH-64D APACHE Attack Helicopter weapon system contains communications and target identification equipment, navigation equipment, aircraft survivability equipment, displays, and sensors. The airframe itself does not contain sensitive technology; however, the pertinent equipment listed below will be either installed on the aircraft or included in the sale.

a. The AN/APG-78 Fire Control Radar (FCR) is an active, low-probability of intercept, millimeter-wave radar combined with a passive Radar Frequency Interferometer (RFI) mounted on top of the helicopter mast. The FCR Ground Targeting Mode detects, locates, classifies and prioritizes stationary or moving armored vehicles, tanks and mobile air defense systems, as well as hovering helicopters, helicopters, and fixed wing aircraft in normal flight. The RFI detects threat radar emissions and determines the type of radar and mode of operation. The FCR data and RFI data are fused for maximum synergism. If desired, the radar data can be used to refer targets to the regular electro-optical Modernized Target Acquisition and Designation Sight (MTADS), permitting additional visual/infrared imagery and control of weapons, including the semi active laser version of the HELLFIRE. Critical system information is stored in the FCR in the form of mission executable code, target detection, classification algorithms and coded threat parameters. This information is provided in a form that cannot be extracted by the foreign user via anti-tamper provisions built into the system. The content of these items is classified Secret. The RFI is a passive radar detections and direction finding system, which utilizes a detachable User Data Module (UDM) on the RFI processor, which contains the RF threat library. The UDM, which is a hardware assemblage, is classified Confidential when programmed with threat parameters, threat priorities and/or techniques derived from U.S. intelligence information.

b. The Modernized Target Acquisition and Designation Sight/Modernized Pilot Night Vision Sensor (MTADS/MPNVS) provides day, night and limited adverse weather target information, as well as night navigation capabilities. The MPNVS provides infrared imaging that permits safer nap-of-the-earth flight to, from and within the battle area, while MTADS provides the co-pilot gunner with improved search, detection, recognition and designation by means of Direct View Optics (DVO), television, Forward Looking Infrared (FLIR) sighting systems that may be used singularly or in combinations. The Hardware and releasable technical manuals for operations and maintenance are Unclassified.

c. The AAR-57(V) 3/5 Common Missile Warning System (CMWS) detects energy emitted by threat missiles in-flight, evaluates potential false alarm emitters in the environment, declares validity of threat and selects appropriate countermeasures. The CMWS consists of an Electronic Control Unit ECU, Electro-Optic Missile Sensors, Sequencer, and Improved Countermeasures Dispenser (ICMD). The ECU hardware is classified Confidential and releasable technical manuals for operation and maintenance are classified Secret.

d. The AN/APR-39 Radar Signal Detecting Set is a system that provides warning of a radar directed air defense threat to allow appropriate countermeasures. This is the 1553 data bus compatible configuration. Hardware is classified Confidential when programmed with U.S. threat data; releasable technical manuals for operation and maintenance are classified Confidential; releasable technical data for performance is classified Secret.

e. The AN/AVR-2B Laser Warning Set is a passive laser warning system that receives, processes and displays threat information resulting from aircraft illumination by lasers on the multi-functional display. The hardware is classified Confidential and releasable technical manuals for operation and maintenance are classified Secret.

f. The AN/ALQ-136A(V)5, Radar jammer-Is an automatic radar jammer that analyzes various incoming radar signals. When threat signals are identified and verified, jamming automatically begins and continues until the threat radar breaks lock. The hardware is classified Confidential; releasable technical manuals for operation and maintenance are classified Secret; releasable technical data for performance is classified Secret.

g. Improved Helmet Display Sight System (IHDSS) is an enhanced version of its predecessor. It will provide improved operational performance primarily in resolution allowing greater utilization of the MTADS/MPNVS performance enhancements. The hardware and releasable technical manuals are Unclassified.

h. The highest level for release of the AGM-114R1 HELLFIRE SAL is Secret, based upon the software. The highest level of classified information that could be disclosed by a proposed sale or by testing of the end item is Secret; the highest level that must be disclosed for production, maintenance, or training is Confidential. Reverse engineering could reveal Confidential information. Vulnerability data, countermeasures, vulnerability/susceptibility analyses, and threat definitions are classified Secret or Confidential.

i. The STINGER Block I 92H Anti-Aircraft missile is a fire-and-forget infrared missile system that can be fired from a number of ground-to-air and rotary wing platforms. The missile homes in on the heat emitted by either jet or propeller-driven, fixed wing aircraft or helicopters. The STINGER system employs a proportional navigation system that allows it to fly an intercept course to the target. The STINGER Block I International Missile System, hardware, software and documentation contain sensitive technology and are classified Confidential. The guidance section of the missile and tracking head trainer contain highly sensitive technology and are classified Confidential.

j. The AN/ARC-201E export variant Single Channel Ground and Airborne Radio System (SINCGARS) is a tactical FM airborne radio subsystem that provides secure, anti-jam voice and data communication. The Enhanced Data Modes (EDM) of the radio employs a Reed-Solomon Forward Error Correction (FEC) technique that provides enhanced bit-error-rate performance. The EDM Packet Data Supports packet data transfer from the airborne host computer to another airborne platform or the ground-based equivalent SINCGARS system.

k. The AN/ARC-231 is an airborne Very High Frequency/Ultra High Frequency (VHF/UHF) Line of Sight (LOS) and Demand Assigned Multiple Access (DAMA) Satellite Communication System (SATCOM). The ARC-231 provides airborne, multi-band, multi-mission, secure anti-jam voice, data and imagery network capable communication in a compact radio set.

l. The AN/ARC-220 is an easy to operate, multifunctional, fully Digital Signal processing (DSP) high frequency radio for rotary wing applications. Its Embedded Automatic Link Establishment (ALE) offers the best clear channel connection. The radio contains Embedded Electronic Counter-Countermeasures (ECCM), Automatic Quick Call ALE (AQC-ALE), Securable Automatic Position Reporting (V)3/(V)4, and Securable Binary Messaging with ARQ protocol, (V)3/(V)4.

m. The AN/APX-123 transponder incorporates all of the advanced features required in today's global military air traffic control environments. The AN/APX-123 transponder contains NSA-certified M4/M5 crypto and meets all U.S. and NATO mode 5 requirements. The transponder's open-system architecture design and high-density field programmable gate array technology ensures ongoing versatility and future utility through software upgrade only, without the risk and cost associated with hardware modifications.

2. If a technologically advanced adversary were to obtain knowledge of the specific hardware and software elements, the information could be used to create countermeasures which might reduce weapons system effectiveness or be used in the development of a system with similar or advanced capabilities.